

Unit 2: Inequalities QUEST study guide

A quest is a smaller test. It covers the material of a unit in less questions and counts for a fewer number of points than a normal test. However, it is still in the test category!

Directions: Complete on a SEPARATE sheet of paper. Show all work if you want full credit.

Lesson 1:

1. Explain how inequalities are similar and different from equations.
2. Given the following set $\{-9, 10, 14, 75, -90\}$ decide which numbers are solutions for...


a. $x - 7 > 8$

b. $5x < -20$

c. $x + 3 \geq 30$

Lesson 2:

3. Are $x > 10$ and $10 < x$ the same inequality?
4. Fill in the missing boxes

Graph	English	Mathematical
		
		$-5 < y$
	z is less than 11	
		$x \geq 7$

Lesson 3:

Balance each inequality, and graph your solution!

5. $n - 4 > 10$

6. $-5 \geq k - 7$

7. $6s \leq 18$

8. $m + 3 < -2$

9. $-9 \geq c + 4$

10. $-78 < 2x$

Lesson 4:

Translate into an inequality, solve and graph.

11. Nine less than a number V is greater than negative three

12. Nineteen more than a number A is at least negative five

13. At a restaurant, Daphaney and her three friends, Amber, Jason and Wilson decided to divide the bill evenly. If each person's part exceeded \$13.00, what was the total bill?

14. Zach had \$5 in his pocket. He earned some money doing chores. He now has at least \$35. How much money could he have earned doing chores?

15. One third of F is at most 15